6560-50-P

### ENVIRONMENTAL PROTECTION AGENCY

**40 CFR Part 52** 

[EPA-R09-OAR-2015-0165; FRL-9925-31-Region 9]

Promulgation of Air Quality Implementation Plans; Arizona; Regional Haze Federal Implementation Plan; Reconsideration

**AGENCY:** Environmental Protection Agency.

**ACTION:** Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to revise part of the Arizona Regional Haze (RH) Federal Implementation Plan (FIP) applicable to the Coronado Generating Station (Coronado). In response to a petition for reconsideration from the Salt River Project Agricultural Improvement and Power District (SRP), the owner/operator of Coronado, we are proposing to replace a plant-wide compliance method with a unit-specific compliance method for determining compliance with the best available retrofit technology (BART) emission limits for nitrogen oxides (NO<sub>X</sub>) from Units 1 and 2 at Coronado. While the plant-wide limit for the NO<sub>X</sub> emissions from Units 1 and 2 were established as 0.065 lb/MMBtu, we are proposing a unit-specific limit of 0.065 lb/MMBtu for Unit 1 and 0.080 lb/MMBtu for Unit 2. In addition, we are proposing to revise the work practice standard in the FIP for Coronado. Finally, we are proposing to remove the affirmative defense for malfunctions from the Arizona RH FIP, which applies to both Coronado and the Cholla Power Plant (Cholla).

**DATES:** Written comments must be submitted to the designated contact on or before [INSERT DATE 45 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER]. Requests for a public hearing must be received on or before [INSERT DATE 15 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** Submit your comments, identified by docket number EPA-R09-OAR-2015-0165, by one of the following methods:

- Federal Rulemaking portal: http://www.regulations.gov. Follow the on-line instructions for submitting comments.
- Email: webb.thomas@epa.gov.
- *Fax:* 415-947-3579 (Attention: Thomas Webb).
- Mail, Hand Delivery, or Courier: Thomas Webb, EPA Region 9, Air Division (AIR-2), 75
   Hawthorne Street, San Francisco, California 94105. Hand and courier deliveries are only accepted
   Monday through Friday, 8:30 a.m. to 4:30 p.m., excluding Federal holidays. Special arrangements
   should be made for deliveries of boxed information.

See the SUPPLEMENTARY INFORMATION section for further instructions on where and how to learn more about this proposal, attend a public hearing, or submit comments.

**FOR FURTHER INFORMATION CONTACT:** Thomas Webb, U.S. EPA, Region 9, Planning Office, Air Division, Air-2, 75 Hawthorne Street, San Francisco, CA 94105. Thomas Webb can be reached at telephone number (415) 947-4139 and via electronic mail at webb.thomas@epa.gov.

## **SUPPLEMENTARY INFORMATION:**

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### I. General Information

### A. Definitions

For the purpose of this document, we are giving meaning to certain words or initials as follows:

- The words or initials *Act* or *CAA* mean or refer to the Clean Air Act, unless the context indicates otherwise.
- The initials ADEQ mean or refer to the Arizona Department of Environmental Quality.
- The words *Arizona* and *State* mean the State of Arizona.
- The initials *BART* mean or refer to Best Available Retrofit Technology.
- The term *Class I area* refers to a mandatory Class I Federal area. <sup>1</sup>
- The initials *CBI* mean or refer to Confidential Business Information.
- The initials *EGU* mean or refer to Electric Generating Unit.
- The words EPA, we, us, or our mean or refer to the United States Environmental Protection Agency.
- The initials *FIP* mean or refer to Federal Implementation Plan.
- The initials *LNB* mean or refer to low-NO<sub>X</sub> burners.
- The initials *MMBtu* mean or refer to million British thermal units.
- The initials MW mean or refer to megawatts.
- The initials  $NO_X$  mean or refer to nitrogen oxides.
- The initials *NP* mean or refer to National Park.

<sup>&</sup>lt;sup>1</sup> Although states and tribes may designate as Class I additional areas which they consider to have visibility as an important value, the requirements of the visibility program set forth in section 169A of the CAA apply only to "mandatory Class I Federal areas."

- The initials *OFA* mean or refer to over fire air.
- The initials *RMB* mean or refer to RMB Consulting and Research.
- The initials *S&L* mean or refer to Sargent and Lundy, a consulting firm.
- The initials *SCR* mean or refer to Selective Catalytic Reduction.
- The initials *SIP* mean or refer to State Implementation Plan.
- The initials SRP mean or refer to the Salt River Project Agricultural Improvement and Power District.
- The initials *UPL* mean or refer to Upper Prediction Limit.

### B. Docket

The proposed action relies on documents, information, and data that are listed in the index on <a href="http://www.regulations.gov">http://www.regulations.gov</a> under docket number EPA-R09-OAR-2015-0165. Although listed in the index, some information is not publicly available (e.g., Confidential Business Information (CBI)). Certain other material, such as copyrighted material, is publicly available only in hard copy form. Publicly available docket materials are accessible either electronically at <a href="http://www.regulations.gov">http://www.regulations.gov</a> or in hard copy at the Planning Office of the Air Division, AIR-2, EPA Region 9, 75 Hawthorne Street, San Francisco, CA 94105. EPA requests that you contact the individual listed in the **FOR FURTHER INFORMATION CONTACT** section to view the hard copy of the docket from Monday through Friday, 9-5:00 PDT, excluding Federal holidays.

## C. Instructions for Submitting Comments to EPA

Written comments must be submitted on or before [INSERT DATE 45 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER]. Submit your comments, identified by docket number EPA-R09-OAR-2015-0165, by one of the following methods:

- Federal Rulemaking portal: http://www.regulations.gov. Follow the on-line instructions for submitting comments.
- Email: webb.thomas@epa.gov.
- *Fax*: 415-947-3579 (Attention: Thomas Webb).
- Mail, Hand Delivery, or Courier: Thomas Webb, EPA Region 9, Air Division (AIR-2), 75
   Hawthorne Street, San Francisco, California 94105. Hand and courier deliveries are only accepted
   Monday through Friday, 8:30 a.m. to 4:30 p.m., excluding Federal holidays. Special arrangements
   should be made for deliveries of boxed information.

EPA's policy is to include all comments received in the public docket without change. We may make comments available online at <a href="http://www.regulations.gov">http://www.regulations.gov</a>, including any personal information provided, unless the comment includes information claimed to be CBI or other information for which disclosure is restricted by statute. Do not submit information that you consider to be CBI or that is otherwise protected through <a href="http://www.regulations.gov">http://www.regulations.gov</a> or email. The <a href="http://www.regulations.gov">http://www.regulations.gov</a> web site is an "anonymous access" system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an email comment directly to EPA, without going through <a href="http://www.regulations.gov">http://www.regulations.gov</a>, we will include your email address as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should not include special characters or any form of encryption, and be free of any defects or viruses.

## D. Submitting Confidential Business Information

Do not submit CBI to EPA through http://www.regulations.gov or email. Clearly mark the part or

all of the information that you claim as CBI. For CBI information in a disk or CD-ROM that you mail to EPA, mark the outside of the disk or CD-ROM as CBI and identify electronically within the disk or CD-ROM the specific information that is claimed as CBI. In addition to one complete version of the comment that includes information claimed as CBI, you must submit a copy of the comment that does not contain the information claimed as CBI for inclusion in the public docket. We will not disclose information so marked except in accordance with procedures set forth in 40 CFR part 2.

# E. Tips for Preparing Your Comments

When submitting comments, remember to:

- Identify the rulemaking by docket number and other identifying information (e.g., subject heading, Federal Register date and page number).
- Explain why you agree or disagree; suggest alternatives and substitute language for your requested changes.
- Describe any assumptions and provide any technical information and/or data that you used.
- If you estimate potential costs or burdens, explain how you arrived at your estimate in sufficient detail to allow for it to be reproduced.
- Provide specific examples to illustrate your concerns, and suggest alternatives.
- Explain your views as clearly as possible, avoiding the use of profanity or personal threats.
- Make sure to submit your comments by the identified comment period deadline.

# F. Public Hearings

If anyone contacts EPA by [INSERT DATE <u>15 DAYS</u> AFTER PUBLICATION IN THE FEDERAL REGISTER] requesting to speak at a public hearing, EPA will schedule a public hearing and announce the hearing in the Federal Register. Contact Thomas Webb at webb.thomas@epa.gov or at (415) 947-4139 to request a hearing or to determine if a hearing will be held.

## II. Background

# A. Summary of Statutory and Regulatory Requirements

Congress created a program for protecting visibility in the nation's national parks and wilderness areas in 1977 by adding section 169A to the CAA. This section of the CAA establishes as a national goal the "prevention of any future, and the remedying of any existing, impairment of visibility in mandatory Class I Federal areas which impairment results from man-made air pollution."<sup>2</sup> It also directs states to evaluate the use of retrofit controls at certain larger, often uncontrolled, older stationary sources in order to address visibility impacts from these sources. Specifically, section 169A(b)(2)(A) of the CAA requires states to revise their State Implementation Plans (SIPs) to contain such measures as may be necessary to make reasonable progress towards the natural visibility goal, including a requirement that certain categories of existing major stationary sources built between 1962 and 1977 procure, install, and operate best available retrofit technology (BART) controls. These sources are referred to as "BART-eligible" sources.<sup>3</sup> In the 1990 CAA Amendments, Congress amended the visibility provisions in the CAA to focus attention on the problem of regional haze, which is visibility impairment produced by a multitude of sources and activities located across a broad geographic area.<sup>4</sup> We promulgated the Regional Haze Rule (RHR) in 1999, which requires states to develop and implement SIPs to ensure reasonable progress toward improving visibility in mandatory Class I Federal areas<sup>5</sup> by reducing emissions that cause or contribute to regional haze. Under the RHR, states are directed to conduct BART determinations for BART-eligible sources that may be anticipated to cause or contribute to any visibility impairment in a Class I area.<sup>7</sup>

### B. History of FIP BART Determination

<sup>&</sup>lt;sup>2</sup> 42 U.S.C. 7491(a)(1).

<sup>&</sup>lt;sup>3</sup> 40 CFR 51.301.

<sup>&</sup>lt;sup>4</sup> See CAA section 169B, 42 U.S.C. 7492.

<sup>&</sup>lt;sup>5</sup> Areas designated as mandatory Class I Federal areas consist of national parks exceeding 6000 acres, wilderness areas, and national memorial parks exceeding 5000 acres, and all international parks that were in existence on August 7, 1977. 42 U.S.C. 7472(a). When we use the term "Class I area" in this action, we mean a "mandatory Class I Federal area."

<sup>&</sup>lt;sup>6</sup> See generally 40 CFR 51.308.

<sup>&</sup>lt;sup>7</sup> 40 CFR 51.308(e).

The Arizona Department of Environmental Quality (ADEQ) submitted a RH SIP ("Arizona RH SIP") under Section 308 of the RHR to EPA Region 9 on February 28, 2011. The Arizona RH SIP included BART determinations for NO<sub>X</sub>, particulate matter (PM), and sulfur dioxide (SO<sub>2</sub>) for Units 1 and 2 at the Coronado Generating Station. We proposed on July 20, 2012, to approve ADEQ's BART determinations for PM and SO<sub>2</sub>, but to disapprove its determination for NO<sub>X</sub> at Coronado. In the same notice, we also proposed a FIP that included a NO<sub>X</sub> BART emission limit of 0.050 lb/MMbtu for Unit 1 and 0.080 lb/MMbtu for Unit 2 based on a 30-boiler-operating-day (BOD) rolling average. These limits correspond to the use of Selective Catalytic Reduction (SCR) control technology to reduce NO<sub>X</sub> emissions. We noted that a consent decree between SRP and EPA required the installation of SCR and compliance with a NO<sub>X</sub> emission limit of 0.080 lb/MMBtu (30-BOD rolling average) at Coronado Unit 2 by June 1, 2014. We explained that:

. . . the emission limit of 0.080 lb/MMBtu established in the consent decree was not the result of a BART five-factor analysis, nor does the consent decree indicate that SCR at 0.080 lb/MMBtu represents BART. Nonetheless, given the compliance schedule established in the consent decree and the preliminary information received from SRP regarding the status of design and construction of the SCR system, it appears that achieving a 0.050 lb/MMBtu emission rate may not be technically feasible. Even if it is feasible, achievement of this emission rate may not be cost-effective. Therefore, we are proposing an emission limit of 0.080 lb/MMBtu as BART for  $NO_X$  at Unit 2. However, if we do not receive sufficient documentation establishing that achievement of a more stringent limit is infeasible or not cost-effective, then we may determine that a more stringent limit for this unit is required in our final action.  $^9$ 

In its comments on our proposal, SRP asserted that a  $NO_X$  emission rate of 0.050 lb/MMBtu was not achievable at either of the Coronado units, due to their startup/shutdown operating profile. In support of this assertion, SRP submitted reports by two consultants, Sargent and Lundy (S&L) and RMB Consulting and Research (RMB), which indicated that the Coronado units could achieve a rolling 30-day emission rate in the range of 0.053 to 0.072 lb/MMBtu. <sup>10</sup> Specifically, the S&L report examined the effect of multiple startup/shutdown events on emission rates over a 30-day period for Unit 2. The S&L report

<sup>8</sup> 77 FR 42834.

<sup>&</sup>lt;sup>9</sup> 77 FR 42864.

<sup>&</sup>lt;sup>10</sup> 77 FR 72555.

also examined potential measures to improve the performance of the current SCR design for Unit 2, including installation of a "low load temperature control system." We explained the purpose of this control system in the preamble to our final rule:

As described in the S&L report, periods of low load operation generally consist of operation between loads of 138 MW to 270 MW (operation above 270 MW can be considered "high" load). Broadly speaking, the temperature in the SCR system will fall below 599 degrees F during these periods of low load operation, which is the minimum temperature required for effective NO<sub>X</sub> control. A low load temperature control system increases the temperature at the SCR inlet in order to maintain 599 degrees F, allowing operation of the SCR system during periods of low load. Without this control system, the Coronado Unit 2 SCR system will not operate during periods of low load. <sup>11</sup>

The low-load temperature-control system is referred to as both "pegging steam" and "steam reheat" in the various documents submitted by SRP. During periods of low load (138 MW to 270 MW), a certain amount of steam is routed to the SCR inlet in order to raise the inlet temperature to above 599 degrees F, which allows for proper operation of the SCR. At loads below 138 MW, the SCR could not operate even with the low-load temperature-control system.

In setting the  $NO_X$  emission limits for Coronado in the final Arizona RH FIP, we considered the information and analyses contained in the S&L report and the RMB report.<sup>12</sup> We concluded that:

In recognition of the work already performed by SRP to meet the consent decree emission limit of 0.080 lb/MMBtu for Unit 2, and to avoid interfering with SRP's ability to meet that requirement by the deadline of June 1, 2014, we have decided not to require a BART emission limit for Coronado 2 more stringent than 0.080 lb/MMBtu. Instead, we are finalizing a plant-wide NO<sub>X</sub> emission limit for Coronado of 0.065 lb/MMBtu on a rolling 30-day average, which will provide a sufficient compliance margin for startup and shutdown events. We are also structuring the compliance determination method so that, when one of the two units is not operating, its emissions from the preceding thirty boiler-operating-days will continue to be included in the two-unit average. We expect that SRP can meet this limit by installing a low load temperature control system on Unit 2 and an SCR system including a low load temperature control system on Unit 1.<sup>13</sup>

Please see our final rule published on December 5, 2012, for further information on the BART determinations and compliance methodology.

<sup>12</sup> *Id.* at 72554-56.

<sup>&</sup>lt;sup>11</sup> *Id*.

<sup>&</sup>lt;sup>13</sup> *Id.* at 72555.

# C. Petition for Reconsideration and Stay

We received a petition from SRP on February 4, 2013, requesting partial reconsideration and administrative stay of our final rule under section 307(d)(7)(B) of the Clean Air Act (CAA) and section 705 of the Administrative Procedure Act. EPA Region 9 sent a letter on April 9, 2013, to representatives of SRP informing the company that we were granting partial reconsideration of the final rule for the Arizona RH FIP. In particular, we stated that we were granting reconsideration of the compliance methodology for NO<sub>X</sub> emissions from Units 1 and 2 at Coronado and that we would issue a notice of proposed rulemaking seeking comment on an alternative compliance methodology. We also noted that, because we initially proposed different NO<sub>X</sub> emission limits for the two units, we would seek comment on the appropriate emission limit for each of the units. Today's notice of proposed rulemaking includes each of these elements, and constitutes EPA's proposed action for the reconsideration.

# **III. Proposed FIP Revision**

EPA is proposing a unit-specific compliance method and separate emission limits for  $NO_X$  on Units 1 and 2 at the Coronado Generating Station. We also are proposing to revise the work practice requirement that applies to Coronado and to remove the affirmative defense for malfunctions that is currently included in the FIP for Coronado and Cholla.

### A. Proposed Compliance Method for Unit-Specific Emission Limits

In a letter sent to EPA on November 18, 2013, SRP outlined its views concerning the compliance method and emission limit at Coronado. Regarding the compliance method, SRP requested that EPA use the same approach specified in the Consent Decree, noting that this would ensure "consistency across"

<sup>&</sup>lt;sup>14</sup> Petition of Salt River Project Agricultural Improvement and Power District for Partial Reconsideration and Stay of EPA's Final Rule: "Approval, Disapproval and Promulgation of Air Quality Implementation Plans; Arizona; Regional Haze State and Federal Implementation Plans" (February 4, 2013).

Letters from Jared Blumenfeld, EPA, to Norman W. Fichthorn and Aaron Flynn, Hunton and Williams (April 9, 2013).

<sup>&</sup>lt;sup>16</sup> Letter from Kelly Barr, SRP, to Deborah Jordan, EPA (November 18, 2013).

applicable requirements."17 EPA notes that the Consent Decree contains two different types of NO<sub>X</sub> emission limits: unit-specific 30-day rolling lb/MMBtu limits and a 365-day plant-wide rolling NO<sub>X</sub> tonnage limit. 18 For purposes of BART, we consider a 30-BOD rolling lb/MMBtu limit to be appropriate.<sup>19</sup> Therefore, we propose to set a separate 30-BOD rolling lb/MMBtu limit for each of the two Coronado Units, based on the following compliance method:

The 30-day rolling average NO<sub>x</sub> emission rate for each unit shall be calculated in accordance with the following procedure: First, sum the total pounds of NO<sub>X</sub> emitted from the unit during the current boiler operating day and the previous twenty-nine (29) boiler-operating days; second, sum the total heat input to the unit in MMBtu during the current boiler operating day and the previous twenty-nine (29) boiler-operating days; and third, divide the total number of pounds of  $NO_X$  emitted during the thirty (30) boiler-operating days by the total heat input during the thirty (30) boiler-operating days. A new 30-day rolling average NO<sub>X</sub> emission rate shall be calculated for each new boiler operating day. Each 30-day rolling average NO<sub>x</sub> emission rate shall include all emissions that occur during all periods within any boiler operating day, including emissions from startup, shutdown, and malfunction.

This method is identical to that employed for the unit-specific 30-day rolling lb/MMBtu limit in the Consent Decree, except that it uses the term "boiler operating day" instead of "Unit Operating Day." This method would replace the plant-wide method promulgated in the final rule at 40 CFR 52.145(f)(5)(B)(ii). All other compliance-related requirements, including the monitoring, recordkeeping and reporting requirements, would remain as promulgated.

### B. Proposed Emission Limits for Coronado Units 1 and 2

Because we are proposing to replace the plant-wide average emission rate limit for NO<sub>X</sub> with unit-specific limits, we also must propose separate emission limits for each of the two units at Coronado. However, we are not reconsidering our determination that BART for Coronado Units 1 and 2 is an emission limit consistent with the use of SCR, low-NO<sub>X</sub> burners (LNB) with over fire air (OFA), and

<sup>&</sup>lt;sup>17</sup> Id. at 4.

<sup>&</sup>lt;sup>18</sup> Consent Decree in United States v. Salt River Project, CV 08-1479-PHX-JAT (D. Az.) (entered Dec. 19, 2008)("Coronado Consent Decree").

<sup>&</sup>lt;sup>19</sup> BART Guidelines, 40 CFR part 51, appendix Y, section V ("For EGUs, specify an averaging time of a 30-day rolling average, and contain a definition of "boiler operating day" that is consistent with the definition in the proposed revisions to the NSPS for utility boilers in 40 CFR Part 60, subpart Da.").

low-load temperature control. Nor are we conducting a new five-factor analysis for these units. Rather, we are reconsidering only the emission limits achievable with SCR and LNB with OFA at Coronado Units 1 and 2. Due to the different regulatory requirements that currently apply to these units, we have analyzed them separately.

# 1. Proposed Emission Limit for Coronado Unit 1

# a. SRP's Analysis of Unit 1

After EPA granted reconsideration, SRP submitted additional information to EPA, including two reports prepared by S&L and RMB concerning the achievability of various NO<sub>X</sub> emission limits at Coronado Unit 1.<sup>20</sup> The 2013 S&L analysis presented modeling results intended to predict NO<sub>X</sub> emissions from Unit 1 under various operating scenarios.<sup>21</sup> The 2013 RMB report further analyzed the achievable NO<sub>X</sub> emission limit at Coronado Unit 1, "based on the results of S&L's modeling and application of an appropriate compliance margin."<sup>22</sup> In particular, RMB applied an "upper prediction limit" (UPL) technique in order to account for "the impact of measurement uncertainty and other process variation."<sup>23</sup>

The 2013 S&L report consisted of an emission analysis of the SCR for Unit 1. Similar to the 2012 S&L report, which concerned Unit 2, the 2013 analysis examined the effect of startup/shutdown events, low-load cycling, and steam reheat on emissions over a 30-day average. In summary, the 2013 S&L analysis examined load profile data for Unit 1 for the period from January 1, 2011, through July 31, 2013, and estimated NO<sub>X</sub> emission rates with the hypothetical use of SCR for the various load profiles that occurred during this period. S&L's estimates of SCR performance and emission rate under various load profiles are summarized in Table 1. For greater detail, consult the 2013 S&L report, which is included in the docket for this proposed rule.

<sup>&</sup>lt;sup>20</sup> Letter from Kelly J. Barr, SRP, to Deborah Jordan, EPA (November 18, 2013) and attachments.

<sup>&</sup>lt;sup>21</sup> Attachment 1 to November 18, 2013, Letter, Sargent and Lundy LLC Report SL-011754, Salt River Project Coronado Generating Station Unit 1 SCR NO<sub>X</sub> emissions Modeling (November 14, 2013).

Attachment 2 to November 18, 2013 Letter, Technical Memorandum from RMB Consulting & Research, Inc. to Salt River Project NO<sub>X</sub> limits Compliance monitoring Consideration on Coronado Unit 1 (October 28, 2013) at 1.

23 Id.

TABLE 1—UNIT 1 LOAD PROFILE OF NOX EMISSIONS

Load Profile	Unit 1 Emission Rate (lb/MMBtu)	Description
SCR Design Target Emission Rate	0.030	Full load performance guarantee per vendor
SCR emission rate at full load steady state conditions	0.040	Actual controlled $NO_X$ emissions are expected to average 0.01 above the design target rate
SCR emission rate when load increasing by more than 10 MW/hour	0.050	Emission expected to change as control systems adjust to changes in boiler load, gas flow rates, and NO <sub>X</sub> loading
SCR emission rate when load decreasing by more than 10 MW/hour	0.035	Emission expected to change as control systems adjust to changes in boiler load, gas flow rates, and NO <sub>X</sub> loading
Emission rate during cold start, oil-firing <sup>24</sup>	0.10	Low NO <sub>X</sub> burners (LNB) only, no SCR during startup. Unit 1 initially uses fuel oil for startup, and transitions to coal to complete startup
Emission rate during cold start, coal-firing	0.25	LNB only, no SCR during startup
Emission rate during warm start, oil-firing <sup>25</sup>	0.19	LNB only, no SCR during startup. Unit 1 initially uses fuel oil for startup, and transitions to coal to complete startup
Emission rate during warm start, coal-firing	0.28	LNB only, no SCR during startup
Emission rate during low load periods	0.29	For low-load periods with no steam reheat (LNB-only, no SCR control)
SCR emission rate during initial shutdown	0.10	Emission rate during shutdown with SCR inlet > 599 degrees F, allowing for SCR operation
Emission rate after SCR shutdown	0.45	LNB only. Corresponds to shutdown period after SCR inlet < 599 degrees F.

Based on the emission rates summarized in Table 1 above, the S&L analysis examined the 30-day emission rate for Unit 1 assuming several combinations of startup events and loading profiles. The highest

<sup>&</sup>lt;sup>24</sup> The term "cold startup" is not specifically defined by SRP or S&L in its analysis. Typically, a "cold startup" refers to a startup event that occurs after the boiler has been offline for approximately 24 to 48 hours or longer. Compared to hot or warm startups, a cold startup event produces greater emissions because it is longer in duration and consumes more fuel.

25 The term "hot" or "warm" startup is not defined by SRP or S&L in its analysis. However, a "hot" or "warm" typically refers

to a startup event that occurs when the boiler has been offline for less than 24 hours. Because certain elements of the boiler may still be hot or warm following shutdown, less time is required to reach normal operating temperatures and conditions. As a result, hot and warm startup events produce fewer emissions than cold startup events because they are shorter in duration and consume less fuel.

controlled 30-day average emission rate for several selected scenarios is presented in Table 2. The full analysis, including selected spreadsheets that contain the emission rate modeling for certain operating scenarios, is available in the docket for this proposed rule.<sup>26</sup>

TABLE 2—SUMMARY OF UNIT 1 EMISSION MODELING RESULTS (PER S&L ANALYSIS)

Scenario	Description	Controlled NO <sub>X</sub>
		Emission Rates based on
		30-day average
		(lb/MMBtu)
0	Full Load high-cycle loading	0.041
1b	Low-load cycling for 30 days (with steam reheat)	0.048
5a	One cold startup with low-load cycling (with steam reheat)	0.055
5b	Two cold startups with low-load cycling (with steam reheat)	0.061
5c	Three cold startups with low-load cycling (with steam reheat)	0.065

The supplemental information submitted by SRP on November 13, 2013, also included a report from RMB. In this report, RMB stated that it used equations for calculating the UPL, which is a statistical technique that examines an existing set of data points and predicts the chances (i.e., the probability) of future data points (in this case, emission rates). In general terms, the UPL is a value that is calculated from a data set that identifies the emission rate that a source or group of sources is meeting and would be expected to meet a specified percent of the time that the source is operating. For example, the 99 percent UPL value is the emission level that the source(s) would be predicted to be below during 99 out of 100 performance tests. The UPL value is calculated using an equation based on the average and variance of a data set (in this instance, the aforementioned emission rates), the distribution of the data, quantity of data points, confidence level, and common statistical values such as t-scores and z-scores. The underlying regulatory concept behind the use of UPL values is that a source should have only a very small risk of

<sup>&</sup>lt;sup>26</sup> "SRP Coronado Generating Station, Unit 1 SCR NOx Emissions Modeling", Prepared by Sargent and Lundy, Report SL-011754, November 14, 2013.

being determined to be in noncompliance when the emission control system is actually performing as expected under each type of normal operation that takes place. UPL values are used in a wide variety of industries for predictive purposes, including finance, manufacturing, and healthcare.

RMB stated that it applied the equations for calculating UPL values to CEMS data for Unit 1, as well as to the CEMS data from three SCR-equipped coal-fired boilers that it considered comparable to Unit 1.<sup>27</sup> To summarize, RMB calculated the 99<sup>th</sup> percentile emission rate for each of the four units, and compared the 99<sup>th</sup> percentile emission rate to the average emission rate of each respective unit. RMB indicated that for Unit 1, the 99<sup>th</sup> percentile emission rate was three to seven percent greater than average emission rates. For the three SCR-equipped units examined, RMB reports that the 99th percentile emission rate was approximately 15 percent higher than average emission rates. RMB then adjusted the average 30-day emission rates from the S&L emission modeling analysis for each operating scenario upwards by 15 percent in order to account for the variability indicated by the UPL values. The results of RMB's analysis are summarized in Table 3.

TABLE 3—SUMMARY OF UNIT 1 EMISSION MODELING RESULTS (PER RMB REPORT)

Scenario	Description	Controlled NO <sub>X</sub> Emission Rate (30-day average in lb/MMBtu)
1b	Low-load cycling for 30 days (with steam reheat)	0.055
5a	One cold startup with low-load cycling (with steam reheat)	0.062
5b	Two cold startups with low-load cycling (with steam reheat)	0.069
5c	Three cold startups with low-load cycling (with steam reheat)	0.073

RMB then indicated that if the emission limit were considered a "never to be exceeded value," an additional compliance margin should be incorporated given that the 99<sup>th</sup> percentile value does not account

<sup>&</sup>lt;sup>27</sup> The CEMS data examined for Unit 1 corresponded to operation with low NO<sub>X</sub> burners, as Unit 1 does not presently operate with SCR. For the three other units, CEMS data corresponding to SCR operation was examined.

for the entire potential range of operating conditions that may occur. RMB indicated that rounding upwards to the next highest reasonable interval, 0.080 lb/MMBtu, would provide an approximate 10 percent compliance margin, and proposed that this value represents the lowest achievable  $NO_X$  emission limit for Unit 1. The full RMB analysis is included in the docket for this proposed rule.

SRP provided additional information to EPA on April 28, 2014, that included documentation on SCR design parameters for Unit 2, the number of historical startup events occurring within single 30-day periods for Units 1 and 2, and expected future operation of Units 1 and 2.<sup>28</sup>

#### b. EPA's Evaluation of Unit 1

In proposing a unit-specific limit for Unit 1, we have reviewed each of the analyses provided by SRP including the emission spreadsheets developed by S&L for several load profile scenarios. In addition, we have compared SRP's emission estimates for certain load profiles with actual Unit 1 emission data as reported to the Air Markets Program Data (AMPD).<sup>29</sup> We consider the emission rates used by S&L for the various load profiles to be reasonable and generally consistent with emission data reported to AMPD. We also consider the scenarios examined by S&L to be realistic depictions of load profile scenarios that were historically experienced by the Coronado units. AMPD and Energy Information Administration (EIA) records indicate periods of both high-load and low-load cycling, as well as 30-day periods with multiple shutdown periods.<sup>30</sup> The greatest number of cold startups occuring in a single 30-day period examined by the the S&L load profile scenarios was three. Although we have not identified an actual historical 30-day period exhibiting three cold startups, we consider this a reasonable assumption given both the number of startup events that have historically occurred,<sup>31</sup> as well as SRP's expectation that the Coronado units will experience greater periods of operation in load-following service or non-operation given the expanded

<sup>&</sup>lt;sup>28</sup> Letter from Kelly J. Barr, SRP, to Deborah Jordan, EPA (April 28, 2014) and attachments.

As noted in SRP's April 28, 2014 information response, we requested detailed emission spreadsheets for several scenarios, including high-load cycling, low-load cycling, and low-load cycling including multiple startups.

See spreadsheet "Coronado 2008-11 NOx Emission Data (daily).xls".

<sup>&</sup>lt;sup>31</sup> See SRP's April 28, 2014 letter, Attachment A (Multiple Start Summary).

role of renewable energy sources.<sup>32</sup> As a result, we consider the emission rate of 0.065 lb/MMBtu, which corresponds to a scenario consisting of low-load cycling operations (with steam reheat) and 3 cold startups within a 30-day period, to be a reasonable estimate of average SCR performance for Unit 1.

With regard to the RMB analysis, we are unable to assess fully this analysis, as it lacked documentation regarding many of its components. In particular, RMB did not identify the UPL equation(s) it used or the emission rate characteristics, data distribution, number of emission rates, or t- or z-scores. RMB did not present specific evidence that the two SCR-equipped units are representative of how Coronado will perform when carefully operated after installation of SCR. In particular, RMB did not address the possibility that the SCR systems on these two units malfunctioned or were incorrectly operated during the data period. Accordingly, we are unable to evaluate RMB's assertions regarding its UPL calculations.

More fundamentally, we do not consider a UPL analysis to be necessary or appropriate for use in establishing an emission limit for Coronado Unit 1. Because the UPL method is a statistical technique, it is essentially an analytical tool that can be applied to any data set and produce a UPL value for a specified percentile (i.e., 95<sup>th</sup>, 98<sup>th</sup>, 99<sup>th</sup> percentile, etc). While UPL has been used by EPA to establish emission standards in other rulemakings, the context for those rulemakings differs significantly from the context for this action. In general, EPA has employed the UPL method in instances where it was necessary to establish an emission standard based on a limited number of emission measurements, such as when establishing maximum available control technology (MACT) standards or new source performance standards (NSPS).<sup>33</sup> The emission data available for establishing MACT standards are generally in the form of short-term, three-run stack tests, with each test-run lasting between one and four hours. These short-term tests represent three "snapshots" of a source's operation and generally will not represent a

<sup>&</sup>lt;sup>32</sup> See April 28, 2014 letter. Expanded periods of load following service will result in greater periods of low-load cycling, as well as increase the need for startup/shutdown events.

<sup>&</sup>lt;sup>33</sup> In particular, EPA has used the UPL method in the Mercury and Air Toxics Standard (MATS), also known as the Boiler MACT, the Wool Fiberglass MACT, the Phosphoric Acid and Phosphate Fertilizer MACT, and the Nitric Acid Plant NSPS.

source's full range of operations or emission levels. Accordingly, when establishing an emission standard that applies continuously across an entire source category, EPA considers it necessary to account for the emissions and operations over a fuller range using data sets that encompass longer time periods (i.e., collected over several months to a year or more of operation). In such situations, EPA applies the UPL method to predict the emission levels the source is achieving at times other than when the stack testing is conducted. For example, it is common for EPA to establish an emission standard for a particular source category for which only three to six test results may be available. Because these three to six data points do not represent the full range of unit operations, the UPL method is employed to "fill in the blanks" when developing an emission standard that is appropriate for a broader range of operations. As described in a memo regarding the use of UPL in establishing MACT standards, "EPA did not have emissions information from sources at all times each source was operating, and therefore determined it was necessary to apply a methodology that addressed the fact that the data were not complete."<sup>34</sup> Furthermore. while EPA has used the UPL method in other instances besides MACT standards, such as in developing NSPS, the emission data sets for those rulemakings were also very limited, numbering at most in the dozens of test results for specific source subcategories.

By contrast, the data set available here is much more extensive, represents continuous data collected over a long period of time, and covers a wider range of unit operations. In particular, the UPL analyses performed by RMB for Coronado Unit 1 and the three SCR-equipped coal-fired boilers examined actual emission data from CEMS (or in the case of Coronado Unit 1, modeled emission data based on actual load operation) that consisted of thousands of data points collected continuously over periods of time ranging from eight months to over a year. As noted above, this is a different context than rulemakings in which EPA has employed the UPL method to develop category-wide emission standards based on, at most, a few dozen data points. Given the size and scope of the data set available in this

Memorandum from Susan Fairchild to Docket Number EPA-HQ-OAR-2010-1041, "Use of the Upper Prediction Limit for Calculating MACT Floors" (July 14, 2014); see also Memo from Susan Fairchild to Docket No. EPA-HQ-OAR-2010-1041, "Approach for Applying the Upper Prediction Limit to Limited Datasets" (October 6, 2014).

instance, we propose to find that the use of the UPL method is not appropriate.<sup>35</sup>

Finally, we do not agree with RMB's suggestion that the emission limit for Coronado Unit 1 should be rounded up to provide an additional compliance margin. We note that the UPL methodology used by EPA for MACT standard development does not include rounding up to the next highest reasonable interval as suggested by RMB. Given the conservative nature of the assumptions in the S&L analysis, we do not consider additional compliance margin appropriate in this instance.

Accordingly, in evaluating an appropriate limit for Coronado Unit 1, we have relied primarily upon the information provided in the S&L analysis. This analysis found that an emission rate of 0.065 lb/MMBtu would be appropriate for a scenario consisting of low-load cycling operations (with steam reheat) and three cold startups within a 30-day period. As described above, we consider this to be a reasonable estimate of SCR performance for Coronado Unit 1. We are are therefore proposing a limit of 0.065 lb/MMBtu on a rolling 30-BOD basis.

# 2. Proposed Emission Limit for Coronado Unit 2

## a. SRP's Analysis of Unit 2

SRP also provided documentation in its April 28, 2014 letter of Unit 2 design parameters and indicated that it is proceeding with the installation of a low-load temperature-control system (i.e., steam reheat) for Unit 2. In addition, SRP stated that the design parameters demonstrate that Unit 2 was properly designed to meet the 0.080 lb/MMBtu NO<sub>X</sub> limit required by the Coronado Consent Decree. Based on these design parameters and emission modeling performed by S&L, SRP reiterated that the design of Unit 2 could not accommodate a NO<sub>X</sub> emission limit lower than that required by the Consent Decree. SRP has met certain terms of the Consent Decree by operating Unit 2 with SCR since June 1, 2014. Finally, in response to an inquiry from EPA regarding the possibility of a work practice standard for the SCR system

<sup>&</sup>lt;sup>35</sup> In addition, we note that we consider RMB's application of its UPL-estimated variability to the results of the S&L modeling inappropriate. The S&L modeling results already account for substantial degree of operational variability by assuming a conservative operating scenario of low-load cycling and 3 cold startups in a single 30-day period. Applying the UPL-estimated variability on top of the S&L modeling could be described, to a degree, as "double counting" operational variability.

on Unit 2, SRP indicated that certain language from the Coronado Consent Decree and the Title V operating permit requiring proper operation of  $NO_X$  controls are sufficient to ensure that  $NO_X$  emissions are minimized.

### b. EPA's Evaluation of Unit 2

In our final rule published on December 5, 2012, establishing the  $NO_X$  emission limit for Coronado Units 1 and 2, we stated the following regarding Unit 2:

In recognition of the work already performed by SRP to meet the consent decree emission limit of 0.080 lb/MMBtu for Unit 2, and to avoid interfering with SRP's ability to meet that requirement by the deadline of June 1, 2014, we have decided not to require a BART emission limit for Coronado 2 more stringent than 0.080 lb/MMBtu.

The information subsequently provided by SRP supports the assertion that the emission limit in the Consent Decree of 0.080 lb/MMBtu represents BART for this unit. In particular, the fact that SRP has already installed a low-load temperature-control system at this unit in order to meet the 0.080 lb/MMBtu limit suggests that a lower limit would not be achievable on a 30-BOD basis. As a result, we propose to set a unit-specific  $NO_X$  limit for Unit 2 of 0.080 lb/MMBtu, based on a rolling 30-BOD basis.

In addition, we propose to revise the work practice standard at 40 CFR 52.145(f)(10) to require the operation of the SCR at all times that Unit 2 is in operation, consistent with technological limitations.<sup>36</sup> As noted in SRP's letter dated April 28, 2014, the Consent Decree contains a work practice standard for Unit 2. This language is included in the facility's current Title V operating permit.<sup>37</sup> We are proposing to include this same language in the BART FIP in order to ensure that the SCR is operated at all times during which it is technologically feasible to do so. In particular, we note that, based on the information provided by SRP, periods of low-load operation are a significant element of the Coronado units' operations. Given the installation of a low-load temperature-control system on Unit 2, the SCR system is now capable of

<sup>&</sup>lt;sup>36</sup> See CAA Section 302(k)(defining "emission limit" to include "any requirement relating to the operation or maintenance of a source to assure continuous emission reduction, and any design, equipment, work practice or operational standard promulgated under this chapter").

<sup>&</sup>lt;sup>37</sup> Specific Conditions II.E.2.b and c, Title V Operating Permit No. 52693, issued December 6, 2011.

operating at lower loads (i.e., between about 138 MW and 270 MW) on Unit 2. Accordingly, we are proposing to revise the work practice standard in the FIP to ensure that the SCR system operates during these periods of low-load operation.

## C. Proposed Removal of Affirmative Defense for Malfunctions

The Arizona RH FIP incorporates by reference certain provisions of the Arizona Administrative Code that establish an affirmative defense for excess emissions due to malfunctions. <sup>38</sup> In the interim since EPA's promulgation of that FIP, the United States Court of Appeals for the D.C. Circuit ruled that CAA sections 113 and 304 preclude EPA from creating affirmative defense provisions in the Agency's own regulations imposing emission limits on sources.<sup>39</sup> The court found that such affirmative defense provisions purport to alter the jurisdiction of federal courts to assess liability and impose penalties for violations of those limits in private civil enforcement cases. The court's holding makes it clear that the CAA does not authorize promulgation of such a provision by EPA. In particular, the court's decision turned on an analysis of CAA sections 113 ("Federal enforcement") and 304 ("Citizen suits"). These provisions apply with equal force to a civil action brought to enforce the provisions of a FIP. The logic of the court's decision thus applies to the promulgation of a FIP, and precludes EPA from including an affirmative defense provision in a FIP. Furthermore, in light of the D.C. Circuit's decision, EPA has proposed to find R18-2-310(B) and R18-2-310(C) substantially inadequate to meet CAA requirements and to issue a SIP call with respect to these provisions. 40 Consistent with the reasoning of the D.C. Circuit and EPA's proposed SIP call, we are proposing to remove the affirmative defense provision in the Arizona Regional Haze FIP. In addition to Coronado, this revision would also affect Cholla.

## D. Non-interference with Applicable Requirements

The CAA requires that any revision to an implementation plan shall not be approved by the

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<sup>&</sup>lt;sup>38</sup> See 40 CFR 52.145(f)(11) (incorporating by reference R-18-2-101, paragraph 65; R18-2-310, sections (A), (B), (D) and (E); and R18-2-310.01).

<sup>&</sup>lt;sup>39</sup> See NRDC v. EPA, 749 F.3d 1055 (D.C. Cir. 2014).

<sup>&</sup>lt;sup>40</sup> 79 FR 55920, 55947 (September 17, 2014).

Administrator if the revision would interfere with any applicable requirement concerning attainment, reasonable further progress, or any other applicable requirement of the CAA.<sup>41</sup>

EPA has promulgated health-based standards, known as the national ambient air quality standards (NAAQS), for seven pollutants, including  $NO_2$ , a component of  $NO_X$ , and pollutants such as ozone and particulate matter with a diameter less than or equal to 2.5 micrometers ( $PM_{2.5}$ ), that are formed in the atmosphere from reactions between  $NO_X$  and other pollutants. Using a process that considers air quality data and other factors, EPA designates areas as "nonattainment" if those areas violate a NAAQS or cause or contribute to violations of a NAAQS in a nearby area. Reasonable further progress, as defined in section 171 of the CAA, is related to attainment and means "such annual incremental reductions in emissions of the relevant air pollutant . . . for the purpose of ensuring attainment of the applicable [NAAQS]." Coronado is located in Apache County, Arizona, which is designated as Unclassifiable/Attainment for all of the NAAQS. Therefore, we propose to find that a revision to the BART emission limits for  $NO_X$  will not interfere with attainment or reasonable further progress for any air quality standard.

The other requirements of the CAA that are applicable to Coronado are:

- Standards of Performance for New Stationary Sources, 40 CFR Part 60, Subpart D;
- National Emission Standards for Hazardous Air Pollutants, 40 CFR Part 63, Subpart UUUUU;
- Compliance Assurance Monitoring, 40 CFR Part 64;
- BART and other visibility protection requirements under CAA sections 110(a)(2)(J) and 169A
   and 40 CFR Part 51, subpart P; and
- Interstate transport visibility requirements under CAA section 110(a)(2)(D)(i)(II).

Today's proposed revisions would not affect the applicable requirements of the National Emission

<sup>&</sup>lt;sup>41</sup> CAA Section 110(1), 42 U.S.C. 7410(1). In this instance EPA is proposing to promulgate a revision to a FIP, rather than to approve a revision to a SIP. Although 110(1) on its face applies only to EPA approvals of plan revisions, we have nonetheless considered whether this proposed action would interfere with the requirements of the CAA.

Standards for Hazardous Air Pollutants, Standards of Performance for New Stationary Sources, or Compliance Assurance Monitoring requirements. Therefore, we propose to find that these revisions would not interfere with these requirements.

The proposed revisions would alter the specific emission limits that constitute BART for NO<sub>X</sub> at Coronado under CAA section 169A and 40 CFR 51.308(e). However, we expect the effect of the proposed changes on visibility will be very small. In particular, we note that, under the BART Guidelines, the "degree of visibility improvement" expected to result from BART is evaluated through modeling of the highest emission rate observed on a 24-hour average. 42 Although today's rule would raise the emission rate allowed on a 30-day rolling average, we do not expect that it would alter the rate on a 24-hour basis. First, the 24-hour maximum emission rate used in visibility modeling corresponds to operation of the SCR during periods of full load, steady state operation. As noted previously, the BART limits proposed in today's rule are still consistent with the application of SCR. In addition, the underlying assumptions regarding SCR emission rate and performance remain unchanged from the December 5, 2012, final rule. Second, the adjustments to the rolling 30-day emission limit were made to accommodate periods of startup and shutdown. Specifically, BART limits for EGUs are established based on a 30-day rolling average and must be met on a continuous basis, including during periods of startup, shutdown, and malfunction. 43 As described previously, the SCR system requires a certain minimum temperature in order to operate properly. As a result, there will necessarily be certain periods of time during startup and shutdown in which the SCR system is not technologically capable of operating. This does not alter any of the assumptions regarding the SCR system when it is in operation, such as the maximum 24-hour emission rate, which is the basis of the visibility modeling. Moreover, the BART Guidelines recommend that periods of startup and shutdown be excluded from the visibility modeling. 44 Therefore, the degree of

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<sup>&</sup>lt;sup>42</sup> BART Guidelines 40 CFR part 51, Appendix Y, section IV.D.5.

<sup>&</sup>lt;sup>43</sup> See CAA section 302(k).

<sup>&</sup>lt;sup>44</sup> Id. section III.A.3 (recommending that "emissions reflecting periods of start-up, shutdown, and malfunction" not be used for modeling.).

visibility improvement would not be significantly diminished.

With respect to the CAA's reasonable progress requirements under CAA section 110(a)(2)(J) and 169A, we note that in a September 3, 2014, final rule, we set reasonable progress goals (RPGs) for Arizona that accounted for the emission reductions projected to result from implementation of BART at Coronado (among other sources). The revised emission limits we are proposing today will allow for greater total annual NO<sub>X</sub> emissions than the FIP. We have therefore considered the impact of additional emissions on the RPGs. As summarized in Tables 4 and 5, the difference in NO<sub>X</sub> emissions between the Arizona RH FIP and today's proposed rule is approximately 233 tons per year (tpy). This amount represents less than one percent of the projected total NO<sub>X</sub> emission reductions in the FIP. Therefore, we consider its potential impact on the RPGs to be *de minimis*.

Finally, CAA section 110(a)(2)(D)(i)(II) requires that all SIPs contain adequate provisions to prohibit emissions that will interfere with other states' required measures to protect visibility. In our final rule of September 3, 2014, we determined that control measures in the Arizona RH SIP and FIP were sufficient to fulfill this requirement for the 1997 8-hour ozone, 1997 PM<sub>2.5</sub>, and 2006 PM<sub>2.5</sub> NAAQS.<sup>47</sup> As noted above, while today's proposal would allow for an increase in emissions of 233 tpy compared to the FIP, this represents less than one percent of the projected total NO<sub>X</sub> emission reductions in the FIP. Accordingly, we propose to determine that this change would not alter our determination that the control measures in the Arizona RH SIP and FIP are adequate to prevent Arizona's emissions from interfering with other states' required measures to protect visibility. Thus, we propose to find that today's proposed revisions would not interfere with any applicable requirement of the CAA.

TABLE 4—CORONADO SCR EMISSION RATE ALLOWED UNDER 2012 EPA FIP

<sup>&</sup>lt;sup>45</sup> 79 FR 52420, 52468-52469.

 $<sup>^{46}</sup>$  This value assumes that the units will fully operate at the allowed emission rates in Table 4 and 5 for every month of the year. Given that the 30-BOD limits are based on conditions that occur infrequently (i.e., low-load cycling, 3 cold startup/shutdowns), during many periods the units can be expected to operate at a lower emission rate. As a result, this value represents a conservative (i.e., tending to overestimate rather than underestimate in this context) estimate of the difference in  $NO_X$  emissions.

<sup>&</sup>lt;sup>47</sup> 79 FR 52426.

Unit No.	Heat Duty <sup>1</sup>	NO <sub>X</sub> Emission Limit <sup>2</sup>	Capacity Factor <sup>1</sup>	$NO_X$	
	(MMBtu/hr)	(lb/MMBtu)		(lb/hr)	(tpy)
Coronado 1	4316	0.065	0.84	280.54	2.042
Coronado 2	3984	0.065	0.89	258.96	2,042

<sup>1</sup> Supplemental Cost Analysis 2012-11-15

TABLE 5—CORONADO SCR EMISSION RATE ALLOWED UNDER PROPOSED 2015 EPA FIP REVISION

Unit No.	Heat Duty <sup>1</sup>	NO <sub>X</sub> Emission Limit	Capacity Factor <sup>1</sup>	$NO_X$	
	(MMBtu/yr)	(lb/MMBtu)		(lb/hr)	(tpy)
Coronado 1	4316	0.065	0.84	280.54	2 275
Coronado 2	3984	0.080	0.89	318.72	2,275

<sup>1</sup> Supplemental Cost Analysis 2012-11-15

### IV. EPA's Proposed Action

EPA is proposing to revise the Arizona RH FIP to replace a plant-wide BART compliance method and emission limit for NO<sub>X</sub> on Units 1 and 2 at Coronado with a single-unit compliance method and emission limit on each of the units. As described in today's action, we are proposing an emission limit of 0.065 lb/MMBtu for Unit 1 and 0.080 lb/MMBtu for Unit 2 with compliance based on a rolling 30-BOD basis. This revision would constitute our action on SRP's petition for reconsideration of the FIP. We also are proposing to remove the affirmative defense for malfunctions in the FIP and revise the work practice requirement that applies to Coronado.

### V. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This action is not a significant regulatory action and was therefore not submitted to the Office of Management and Budget (OMB) for review. This rule applies to only two facilities and is therefore not a rule of general applicability.

<sup>2</sup> Emission limit per FIP final rule, 77 FR 72578

## B. Paperwork Reduction Act (PRA)

This action does not impose an information collection burden under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. This rule applies to only two facilities. Therefore, its recordkeeping and reporting provisions do not constitute a "collection of information" as defined under 44 U.S.C. 3502(3) and 5 CFR 1320.3(c).

## C. Regulatory Flexibility Act (RFA)

I certify that this proposed action will not have a significant economic impact on a substantial number of small entities. This action will not impose any requirements on small entities. Firms primarily engaged in the generation, transmission, and/or distribution of electric energy for sale are small if, including affiliates, the total electric output for the preceding fiscal year did not exceed 4 million megawatt hours. Each of the owners of facilities affected by this rule, SRP, Arizona Public Service and PacifiCorp, exceeds this threshold.

### D. Unfunded Mandates Reform Act (UMRA)

This action does not contain an unfunded mandate of \$100 million or more as described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments.

### E. Executive Order 13132: Federalism

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government.

# F. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments

This action does not have tribal implications, as specified in Executive Order 13175. It will not have substantial direct effects on any Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and

Indian tribes. Thus, Executive Order 13175 does not apply to this action.

G. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks

EPA interprets EO 13045 as applying only to those regulatory actions that concern health or safety
risks that EPA has reason to believe may disproportionately affect children, per the definition of "covered
regulatory action" in section 2-202 of the Executive Order. This action is not subject to Executive Order
13045 because it does not concern an environmental health risk or safety risk.

H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

This action is not subject to Executive Order 13211 because it is not a significant regulatory action under Executive Order 12866.

## I. National Technology Transfer and Advancement Act

This rulemaking does not involve technical standards. EPA is not proposing to revise any technical standards or impose any new technical standards in this action.

J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

EPA believes the human health or environmental risk addressed by this action will not have potential disproportionately high and adverse human health or environmental effects on minority, low-income or indigenous populations. We expect that Coronado will install the same control technology in order to meet the revised emission limits as would have been necessary to meet the previously finalized limits. As shown in Tables 4 and 5 above, the difference in NO<sub>X</sub> emissions between the final EPA FIP and today's proposed rule is approximately 233 tons per year (tpy). Although this is a not a trivial amount of emissions, it is relatively small compared to the facility's total emissions. In particular, 233 tpy is equivalent to about 3 percent of the 7,300 tpy of NO<sub>X</sub> that the facility is presently allowed to emit under

the Coronado Consent Decree. 48 Furthermore, as shown in Table 5, if today's proposal is finalized, total

NO<sub>X</sub> emissions from the facility would be roughly 2,275 tpy, a decrease of over 5,000 tpy compared to the

plant-wide cap under the Consent Decree. Thus, although today's proposed revision will allow for a

marginal increase in emissions compared to the FIP, it will still ensure a significant reduction in emissions

compared to present levels.

*K. Determination Under Section 307(d)* 

Pursuant to CAA section 307(d)(1)(B), EPA proposes to determine that this action is subject to the

requirements of CAA section 307(d), as it revises a FIP under CAA section 110(c).

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Nitrogen oxides, Reporting

and recordkeeping requirements, Visibility.

Authority: 42 U.S.C. 7401 et seq.

Dated: March 13, 2015.

Jared Blumenfeld,

Regional Administrator,

EPA Region IX.

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<sup>&</sup>lt;sup>48</sup> Coronado Consent Decree, paragraph 44.

Part 52, chapter I, title 40 of the Code of Federal Regulations is proposed to be amended as follows:

## PART 52--APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

1. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401 et seq.

## Subpart D--Arizona

2. In §52.145, revise paragraphs (f)(3)(i), (f)(5)(ii)(A) and (B), and (f)(10) and remove paragraph (f)(11) to read as follows:

## §52.145 Visibility protection.

\* \* \* \* \*

(f) \* \* \*

(3) \* \* \*

(i)  $NO_X$  emission limitations. The owner/operator of each coal-fired unit subject to this paragraph (f) shall not emit or cause to be emitted  $NO_X$  in excess of the following limitations, in pounds per million British thermal units (lb/MMBtu) from any coal fired unit or group of coal-fired units. Each emission limit shall be based on a rolling 30-boiler-operating-day average, unless otherwise indicated in specific paragraphs.

Coal fired unit or Group of coal-fired units	Federal emission limitation
Cholla Power Plant Units 2, 3, and 4	0.055
Coronado Generating Station Unit 1	0.065
Coronado Generating Station Unit 2	0.080

\* \* \* \* \*

- (5) \* \* \*
- (ii) \* \* \*
- (A) Cholla Power Plant. The 30-day rolling average NO<sub>X</sub> emission rate for the group of coal-fired units identified as Cholla Power Plant, Units 2, 3, and 4 shall be calculated for each calendar day, even if a unit is not in operation on that calendar day, in accordance with the following procedure: step one, for each unit, sum the hourly pounds of NO<sub>X</sub> emitted during the current boiler-operating day (or most recent boiler-operating day if the unit is not in operation), and the preceding twenty-nine (29) boiler-operating days, to calculate the total pounds of NO<sub>X</sub> emitted over the most recent thirty (30) boiler-operating day period for each coal-fired unit; step two, for each unit, sum the hourly heat input, in MMBtu, during the current boiler-operating day (or most recent boiler-operating day if the unit is not in operation), and the preceding twenty-nine (29) boiler-operating days, to calculate the total heat input, in MMBtu, over the most recent thirty (30) boiler-operating day period for each coal-fired unit; step 3, sum together the total pounds of NO<sub>X</sub> emitted from the group of coal-fired units over each unit's most recent thirty (30) boiler-operating day period (the most recent 30 boiler-operating day periods for different units may be different); step four, sum together the total heat input from the group of coal-fired units over each unit's most recent thirty (30) boiler-operating day period; and step five, divide the total pounds of NO<sub>X</sub> emitted from step three by the total heat input from step four for each group of coal-fired units, to calculate the 30-day rolling average NO<sub>X</sub> emission rate for each group of coal-fired units, in pounds of NO<sub>X</sub> per MMBtu, for each calendar day. Each 30-day rolling average NO<sub>X</sub> emission rate shall include all emissions and all heat input that occur during all periods within any boiler-operating day, including emissions from startup, shutdown, and malfunction.
- (B) Coronado Generating Station. Compliance with the  $NO_X$  emission limits for Coronado Unit 1 and Coronado Unit 2 in paragraph (f)(3)(i) of this section shall be determined on a rolling 30 boiler-operating-day basis. The 30-boiler-operating-day rolling  $NO_X$  emission rate for each unit shall be

calculated in accordance with the following procedure: Step one, sum the total pounds of  $NO_X$  emitted from the unit during the current boiler operating day and the previous twenty-nine (29) boiler operating days; Step two, sum the total heat input to the unit in MMBtu during the current boiler operating day and the previous twenty-nine (29) boiler operating days; Step three, divide the total number of pounds of  $NO_X$  emitted from that unit during the thirty (30) boiler operating days by the total heat input to the unit during the thirty (30) boiler operating days. A new 30-boiler-operating-day rolling average  $NO_X$  emission rate shall be calculated for each new boiler operating day. Each 30-boiler-operating-day average  $NO_X$  emission rate shall include all emissions that occur during all periods within any boiler operating day, including emissions from startup, shutdown, and malfunction.

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- (10) Equipment operations. -- (i) Cholla Power Plant. At all times, including periods of startup, shutdown, and malfunction, the owner or operator of Cholla Power Plant Units 2, 3 and 4 shall, to the extent practicable, maintain and operate each unit including associated air pollution control equipment in a manner consistent with good air pollution control practices for minimizing emissions. Pollution control equipment shall be designed and capable of operating properly to minimize emissions during all expected operating conditions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Regional Administrator which may include, but is not limited to, monitoring results, review of operating and maintenance procedures, and inspection of each unit.
- (ii) Coronado Generating Station. At all times, including periods of startup, shutdown, and malfunction, the owner or operator of Coronado Generating Station Unit 1 and Unit 2 shall, to the extent practicable, maintain and operate each unit in a manner consistent with good air pollution control practices for minimizing emissions. The owner or operator shall continuously operate pollution control equipment at all times the unit it serves is in operation, and operate pollution control equipment in a manner

consistent with technological limitations, manufacturer's specifications, and good engineering and good air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Regional Administrator which may include, but is not limited to, monitoring results, review of operating and maintenance procedures, and inspection of each unit.

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